REMARKS

Claims 1-8 are pending; claim 1 has been amended; and claims 4-8 are newly added in accordance with current Office policy, to alternatively define Applicant's invention and thereby assist the Examiner by facilitating the search and thus expediting the compacted prosecution.

Claims 1-3 were rejected under 35 U.S.C. §103(a), as rendered obvious and unpatentable, over Kumaki in view of Ishizaki et al. (*hereafter*: Ishizaki). The Applicant respectfully traverses this rejection for the following reason(s).

The Examiner has indicated that Figs. 1 and 6 of Kumaki disclose "a data input unit (Fig. 1, color temperature adjusting unit 5), a microcomputer (1 and 2), and that Fig. 6 discloses the digital to analog converter (D/A) (20)."

Note that Kumaki discloses:

- FIG. 1 is a block diagram showing a display apparatus of a **first** preferred embodiment according to the invention; and
- FIG. 6 is a block diagram showing a contrast control unit in the **second** preferred embodiment; wherein
- FIG. 4 is a block diagram showing a circuit for generating color temperature coefficients in a display apparatus of a **second** preferred embodiment according to the invention.

Accordingly, the Examiners has improperly combined the teachings of two separate embodiments (Figs 1 and 6) disclosed in Kumaki without support for such a combination.

Additionally, elements 1 and 2 in Kumaki are disclosed as "a contrast control unit 1" and "a brightness control unit 2." Kumaki fails to teach or suggest that a contrast control unit 1 and a

brightness control unit 2 are a microprocessor. Also, Kumaki fails to teach or suggest that contrast control unit 1 and a brightness control unit 2 have the function of *processing color signals corresponding to color temperature using stored color temperature values and a color curve control program in order to change the colors on the screen according to signals received by the data input unit*, as required by claim 1. The Examiner has not identified where either of the applied references (Kumaki and Ishizaki), taken singularly or in combination, teach the foregoing feature required by claim 1.

Further, Kumaki fails to teach or suggest that contrast control unit 1 and a brightness control unit 2 have the function of *generating color gain signals and color cutoff signals* as required by claim 1. The Examiner has not identified where either of the applied references (Kumaki and Ishizaki), taken singularly or in combination, teach the foregoing feature required by claim 1.

Accordingly, the feature of *a microcomputer, for processing color signals corresponding to color temperature using stored color temperature values and a color curve control program in order to change the colors on the screen according to signals received by the data input unit, and for generating color gain signals and color cutoff signals* is deemed to be unobvious in view of Kumaki and Ishizaki.

Therefore, since the Examiner has failed to provide a *prima facie* basis of obviousness, then the rejection is deemed to be in error and should be withdrawn. *In re Rijckaert*, 228 USPQ2d 1955 (CAFC 1993) states:

> "A *prima facie* case of obviousness is established when the teachings from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art." *In re Bell,* 991 F.2d 781, 782, 26 USPQ2d 1529, 1531 (Fed. Cir. 1993) (quoting *In re Rhinehart,* 531 F.2d 1048, 1051, 189 USPQ 143, 147 (CCPA 1976). If the examiner fails to establish a *prima facie* case, the rejection is improper and will be overturned. *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988).

Note also that claim 1 calls for *a digital to analog converter for converting the digital color gain and cutoff signals from the microcomputer into analog signals.* Here, the Examiner again relies on Kumaki, and in particular, Fig. 6 of Kumaki, which is a block diagram showing a contrast control unit in the second preferred embodiment. In the contrast control unit, the color temperature coefficients K_R, K_G and K_B, each of which is classified to designate one of the primary color signals R, G and B by the channel data, are supplied to a multiplication type digital to analog converter 20 which includes a data receiving unit 21, and three multipliers 22R, 22G and 22B. The data receiving unit 21 determines a primary color signal to which a serially received color temperature coefficient relates and **converts** the color temperature coefficient to a parallel color temperature coefficient which is supplied to a corresponding one of the multipliers 22R, 22G and 22B. The contrast control unit further comprises a volume VR_1 for supplying a contrast control signal through a voltage follower circuit including an operational amplifier OP_1, a transistor Q_1, and a resistance R_1 commonly to the multipliers 22R, 22G and 22B. Thus, the multipliers 22R, 22G and 22B supply gain control signals "$K_R \bullet V_{CONT}$ ", "$K_G \bullet V_{CONT}$ " and "$K_B \bullet V_{CONT}$ " to amplifying stages for the primary color signals R, G and B. The amplifying stages include linear attenuators 23R, 23G and 23B, pre-amplifiers 24R, 24G and 24B, and main amplifiers 25R, 25G and 25B, wherein the attenuation factor is changed for the linear attenuators 24R, 23G and 23B by the gain control signals "$K_R \bullet V_{CONT}$ ", "$K_G \bullet V_{CONT}$ " and "$K_B \bullet V_{CONT}$ ", and gains of the pre-amplifiers 24R, 24G and 24B, and the main amplifiers 25R, 25G and 25B are fixed, so that input signals Rin, Gin and Bin for the primary color signals R, G and B supplied to the linear attenuators 24R, 23G and 23B are amplified in the amplifying stages to provide amplified output signals by gains of "$A \bullet K_R \bullet V_{CONT}$ ", "$A \bullet K_G \bullet V_{CONT}$ ", and "$A \bullet K_B \bullet V_{CONT}$ ". As can be seen from the foregoing, the digital to analog converter

of Fig. 6 in Kumaki makes no mention of converting either of the digital color gain signals or the digital color cutoff signals to analog signals. Ishizaki fails to make mention of any such digital to analog conversion. Accordingly, the feature of *a digital to analog converter for converting the digital color gain and cutoff signals from the microcomputer into analog signals* is deemed to be unobvious in view of Kumaki and Ishizaki.

Therefore, since the Examiner has failed to provide a *prima facie* basis of obviousness, then the rejection is deemed to be in error and should be withdrawn.

It should be noted for the record that Kumaki discloses a display apparatus which includes **manual keys** (Fig. 4, up keys 11RU, 11GU and 11BU, and down keys 11RD, 11GD and 11BD) provided to supply color temperature coefficients to contrast and brightness control units, so that an adjusted ratio of the color temperature coefficients is generated independently of contrast and brightness control signals. Ishizaki discloses controlling a bias voltage applied to each color signal according to temperature in order to avoid undesirable density or color changes. Ishizaki further discloses controlling the γ (gamma)-transformation for each of the three primary color image signals independently, based on a relation between transmittance for each of three primary color lights corresponding to the three primary color image signals and a voltage applied to a liquid crystal display, according to a temperature detected by a **temperature detection circuit** 213. Accordingly, it is these **manual keys** or **temperature detection circuit** which correspond to the claimed feature of *a data input unit, for entering values to change the colors on the screen of a video monitor.* The Applicant's specification clearly states "as shown in Fig. 1, a data input unit 10 includes **a temperature sensing unit 11 for generating a temperature signal** corresponding to the ambient temperature of the monitor, and a **keypad** 12 through which users selects an automatic mode or

manual mode of operation and **inputs color temperature values** during the manual mode of operation."

Fig. 4 in Kumaki shows a hardware structure for generating color temperature coefficients K_R, K_G and K_B which is used in the second preferred embodiment. This hardware structure comprises a color temperature coefficient generating unit 10 including a **microprocessor** and a **memory**, up-**keys** 11RU, 11GU and 11BU for increasing the proportion of the color temperature coefficients K_R, K_G and K_B, and down **keys** 11RD, 11GD and 11BD for decreasing the proportion of the color temperature coefficients K_R, K_G and K_B. The color temperature coefficient generating unit 10 generates the color temperature coefficients K_R, K_G and K_B in accordance with the processing as shown in Fig. 5, when any one of the up keys 11RU, 11GU and 11BU, and the down keys 11RD, 11GD and 11BD is pressed.

The **microprocessor** in color temperature coefficient generating unit 10, however, fails to perform the function of *processing color signals corresponding to color temperature using stored color temperature values and a color curve control program in order to change the colors on the screen according to signals received by the data input unit* as required by claim 1. Additionally, the **microprocessor** in color temperature coefficient generating unit 10 fails to perform the function of *generating color gain signals **and** color cutoff signals* as required by claim 1.

The Examiner has erroneously indicated that the γ transformation control 204 is a **microprocessor**. Deficiencies in the factual basis cannot be supplied by resorting to speculation or unsupported generalities. *In re Warner*, 379 F.2d 1011, 154 USPQ 173 (CCPA 1967) and *In re Freed*, 425 F.2d 785, 165 USPQ 570 (CCPA 1970). Note here that the γ transformation control 204, however, fails to perform the function of *processing color signals corresponding to color temperature using stored color temperature values **and a color curve control program** in order to*

change the colors on the screen according to signals received by the data input unit as required by claim 1. Additionally, the γ transformation control 204 fails to perform the function of *generating* ***color gain signals*** *and* ***color cutoff signals*** as required by claim 1. Instead, γ transformation control 204 generates γ control signals, which, as one of ordinary skill in the art knows, are not the same as color gain signals nor color cutoff signals. Note that neither of the applied references make mention of, teach nor suggest a microprocessor which processes the color signals corresponding to color temperature using stored color temperature values and ***a color curve control program***.

Accordingly, the feature of *a microcomputer, for processing color signals corresponding to color temperature using stored color temperature values and a color curve control program in order to change the colors on the screen according to signals received by the data input unit, and for generating color gain signals and color cutoff signals* is deemed to be unobvious in view of Kumaki and Ishizaki.

Regarding claim 2, the following features are deemed to be unobvious in view of the applied art:

- *an on screen display unit, for generating on screen display signals describing a procedure of transmitting the display values from the data input unit to the microcomputer, and changing the colors on the screen using said display values*; and
- *a multiplexer for selectively supplying the on screen display signals transmitted by the on screen display unit.*

With respect to the foregoing features, the Examiner has not provided an indication which reference, if any, teaches the feature of *an on screen display unit, for generating on screen display signals describing a procedure of transmitting the display values from the data input unit to the*

microcomputer, and changing the colors on the screen using said display values. A detailed review of both references finds that neither reference teaches or discloses the above feature.

Therefore, since the Examiner has failed to provide a *prima facie* basis of obviousness, then the rejection is deemed to be in error and should be withdrawn.

With respect to the feature of *a multiplexer for selectively supplying the on screen display signals transmitted by the on screen display unit*, the Examiner has referred to Fig. 4 in Kumaki as the claimed *multiplexer*. Although the color temperature coefficient generating unit 10 in fig. 4 of Kumaki has a serial output, such a serial output is in no way a teaching of a multiplexer because the serial output (K_R, K_G and K_B) are not inputs to the color temperature coefficient generating unit 10, as would be required by a **multiplexer**. In fact Kumaki clearly discloses that color temperature coefficient generating unit 10 is comprised of a microprocessor, a memory, up-keys 11RU, 11GU and 11BU and down keys 11RD, 11GD and 11BD. Kumaki makes to mention of a multiplexer nor provides any teaching to suggest the the color temperature coefficient generating unit 10 has a multiplexing function. No teachings found in Ishizaki were applied to the rejection of claim 2.

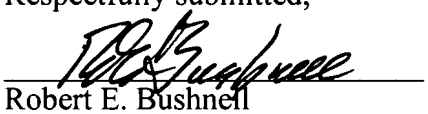
Therefore, since the Examiner has failed to provide a *prima facie* basis of obviousness, then the rejection is deemed to be in error and should be withdrawn.

Claims 4-8 are deemed to be allowable over the art of record for the same reasons detailed above with respect to claims 1-3.

The examiner is respectfully requested to reconsider the application, withdraw the objections and/or rejections and pass the application to issue in view of the above amendments and/or remarks.

Should a Petition for extension of time be required with the filing of this Amendment, the Commissioner is kindly requested to treat this paragraph as such a request and is authorized to charge Deposit Account No. 02-4943 of Applicant's undersigned attorney in the amount of the incurred fee if, **and only if**, a petition for extension of time be required **and** a check of the requisite amount is not enclosed.

Respectfully submitted,



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